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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,749	11/18/2003	Thomas Converse	129419-2	5516
7590	02/03/2006		EXAMINER GUTMAN, HILARY L	
Robert E. Walter General Electric Company One Plastics Avenue Pittsfield, MA 01201			ART UNIT 3612	PAPER NUMBER

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/715,749	CONVERSE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hilary Gutman	3612	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 17 are objected to because of the following informalities:

In claim 1, line 6, "a bumper beam" should perhaps refer back to the beam of line 2.

In claim 17, on line 2, "method" should perhaps be "system". Also on line 6, a negative limitation ("not visible") is set forth but the claims should be positively recited. Perhaps the negative limitations should be modified.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3612

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta in view of Evans et al.

Ohta (5,780,129) discloses an energy absorber adapted for attachment to a vehicle bumper beam R<sub>2</sub> for absorbing forces generated from an impact, said energy absorber comprising a blow molded thermoplastic single piece structure having a rearward facing support portion (rear portion 1) and a crushable forward projecting portion (front portion 1) adapted to crush upon impact. The forwardly projecting portion comprises a plurality of forwardly projecting crushable members (generally 1a, 1b, 1c).

With regard to claim 2, the energy absorber has an elongated shape and is adapted for mounting to the forward end of a vehicle for extending longitudinally across the width of the vehicle.

With regard to claim 3, the energy absorber is “adapted” for pedestrian leg protection and has a highly efficient crush mode.

With regard to claim 4, the energy absorber is “adapted” to reduce forces of impact with legs of a pedestrian.

With regard to claim 5, the energy absorber is “adapted” to absorb energy during an impact of said vehicle at low speeds of less than or equal to 5Mph.

With regard to claim 6, the energy absorber consists essentially of a single integral unit of blow molded material.

With regard to claim 12, the energy absorber comprises a thermoplastic resin.

With regard to claim 13, the thermoplastic resin comprises polyolefin, a polyester resin, a polycarbonate, or mixtures thereof.

With regard to claim 14, the polyester resin can be a high density polyethylene or a low density polyethylene.

With regard to claim 15, the polyester resin can be polybutylene terephthalate and the polycarbonate can apparently be an aromatic polycarbonate.

Ohta discloses the support portion apparently including an upper flange and a lower flange for attaching the energy absorber to a bumper beam but lacks a flange extending around the periphery of the support portion.

Evans et al. (4,397,490) teach an energy absorber having a support portion 13 and a peripheral flange extending around the periphery of the support portion for attaching the energy absorber to a bumper beam.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a peripheral flange as taught by Evans et al. for the support portion of Ohta in order to allow the energy absorber to be attached to a bumper beam at points around the periphery of the support portion.

5. Claims 1-6 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamada et al. in view of Ohta and Evans et al.

Tamada et al. (6,406,079) disclose an energy absorber 3 adapted for attachment to a vehicle for absorbing forces generated from an impact, said energy absorber comprising a blow molded thermoplastic single piece structure having a rearward facing support portion 9 and a crushable forward projecting portion 8 adapted to crush upon impact. The forwardly projecting portion comprises a plurality of forwardly projecting crushable members (Figure 3 or 4).

With regard to claim 2, the energy absorber has an elongated shape and is adapted for mounting to the forward end of a vehicle for extending longitudinally across a portion of the width of the vehicle.

With regard to claim 3, the energy absorber is “adapted” for pedestrian leg protection and has a highly efficient crush mode.

With regard to claim 4, the energy absorber is “adapted” to reduce forces of impact with legs of a pedestrian.

With regard to claim 5, the energy absorber is “adapted” to absorb energy during an impact of said vehicle at low speeds of less than or equal to 5Mph.

With regard to claim 6, the energy absorber 3 consist essentially of a single integral unit of blow molded material.

With regard to claim 9, the plurality of crushable members extend outwardly from the support portion, each of said crushable members having a forwardly facing front wall, at least a pair of adjacent lobes having interconnecting front walls (Figures 1 and 2).

With regard to claim 10, the plurality of the crush means are attached longitudinally across the front of the support portion.

With regard to claim 11, the plurality of crushable members project forwardly and are spaced apart longitudinally across the support portion.

With regard to claim 12, the energy absorber comprises a thermoplastic resin.

With regard to claim 13, the thermoplastic polymer comprises a polyester resin.

With regard to claim 14 the polyester resin is a high density polyethylene.

With regard to claim 15, the polyester resin is polybutylene terephthalate.

With regard to claim 16, the energy absorber is interposed between a fascia 4 and the bumper beam, the energy absorber being attachable to the front end of the vehicle, the fascia enveloping the energy absorber and reinforcing beam such that neither component other than the fascia is visible once attached to the vehicle.

Tamada et al. lack the energy absorber extending longitudinally across the entire width of the vehicle.

Ohta (5,780,129) teaches an energy absorber adapted for attachment to a vehicle for absorbing forces generated from an impact, said energy absorber comprising a blow molded unitary structure having a rearward facing support portion R<sub>2</sub> and a crushable forward projecting portion R<sub>1</sub> adapted to crush upon impact. The energy absorber extends longitudinally across the width of the vehicle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the energy absorber of Tamada et al. to have extended across the entire width of the vehicle as taught by Ohta to provide energy absorption qualities to the entire width of the vehicle as opposed to just the left and right side portions.

Tamada et al., as modified, lacks a peripheral flange of the support portion for attaching the energy absorber to a bumper beam.

Evans et al. (4,397,490) teach an energy absorber having a support portion 13 and a peripheral flange extending around the periphery of the support portion for attaching the energy absorber to a bumper beam.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a peripheral flange as taught by Evans et al. for the support portion

Art Unit: 3612

of Tamada et al., as modified, in order to allow the energy absorber to be attached to a bumper beam at points around the periphery of the support portion.

6. Claims 1-6 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (6,609,740) in view of Evans et al.

For claim 1 Evans '740 discloses an energy absorber 22 adapted for attachment to a vehicle bumper beam 21 for absorbing forces generated from an impact, said energy absorber 22 comprising a molded thermoplastic single piece structure having a rearward facing support portion 42, 42' and a crushable forward projecting portion (generally 43, 43', 44, 44') adapted to crush upon impact. The support portion comprises an upper and lower flange extending the length of the support portion for attaching the absorber to the bumper beam. The forwardly projecting portion 43, 43', 44, 44' comprises a plurality of forwardly projecting crushable members (Figure 3).

Evans lacks the flange extending around a periphery of the support portion.

Evans et al. (4,397,490) teach an energy absorber having a support portion 13 and a peripheral flange extending around the periphery of the support portion for attaching the energy absorber to a bumper beam.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a peripheral flange as taught by Evans et al. for the support portion of Evans in order to allow the energy absorber to be better and more securely attached to a bumper beam at points around the periphery of the support portion.



Art Unit: 3612

With regard to claim 2, the energy absorber has an elongated shape and is adapted for mounting to the forward end of a vehicle for extending longitudinally across the width of the vehicle (Figure 1).

With regard to claim 3, the energy absorber is “adapted” for pedestrian leg protection and has a highly efficient crush mode.

With regard to claim 4, the energy absorber is “adapted” to reduce forces of impact with legs of a pedestrian.

With regard to claim 5, the energy absorber is “adapted” to absorb energy during an impact of said vehicle at low speeds of less than or equal to 5Mph.

With regard to claim 6, the energy absorber consists essentially of a single integral unit of molded material.

With regard to claim 9, the plurality of crushable members (Figure 3) extend outwardly from the support portion, each of said crushable members having a forwardly facing front wall, at least a pair of adjacent lobes (such as an upper lobe with front wall 41 and a lower lobe with front wall 41') having interconnecting front walls (Figures 1 and 3).

With regard to claim 10, the plurality of the crush means are attached longitudinally across the front of the support portion.

With regard to claim 11, the plurality of crushable members project forwardly and are spaced apart longitudinally across the support portion.

With regard to claim 12, the energy absorber comprises a thermoplastic resin (specifically a blend of PC/ABS/PBT).

With regard to claims 13 and 14, the thermoplastic resin comprises a mixture of a polyester resin and a polycarbonate.

With regard to claim 15, the polyester resin can be polybutylene terephthalate.

With regard to claim 16, the energy absorber is interposed between a fascia (disclosed, but not shown) and the bumper beam, the energy absorber being attachable to the front end of the vehicle, the fascia inherently enveloping the energy absorber and reinforcing beam such that neither component other than the fascia is visible once attached to the vehicle.

With regard to “blow molded” (claims 1 and 6), it should be noted that the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113).

7. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (6,609,740) in view of Evans et al.

With regard to claim 17, Evans (6,609,740) discloses an energy absorbing bumper system for an automobile vehicle, comprising: a bumper beam 21 attachable to the vehicle; an energy absorber 22 attached to the bumper beam; and a fascia (disclosed, but not shown) inherently enveloping the absorber and beam so that the absorber and beam are not visible; the energy absorber 22 comprising: a molded thermoplastic single piece structure having a rearward facing support portion 42, 42' and a crushable forward projecting portion (43, 43', 44, 44') adapted to crush upon an impact, the support portion comprising an upper flange and a lower flange

Art Unit: 3612

extending the length of the support portion for attaching the absorber to the beam, the forward projecting portion comprising a plurality of forwardly projecting crushable members.

With regard to claim 18, the energy absorber has an elongated shape (Figure 1) and is adapted to extend longitudinally across the width of the vehicle.

With regard to claim 19, the plurality of crushable members extend outwardly from the support portion, each member having a forwardly facing front wall 41, 41', at least a pair of adjacent members having interconnecting front walls (Figure 3).

With regard to claim 20, the plurality of crushable members project forwardly and are spaced apart longitudinally across the support portion.

Evans lacks the flange extending around a periphery of the support portion.

Evans et al. (4,397,490) teach an energy absorber having a support portion 13 and a peripheral flange extending around the periphery of the support portion for attaching the energy absorber to a bumper beam.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a peripheral flange as taught by Evans et al. for the support portion of Evans in order to allow the energy absorber to be better and more securely attached to a bumper beam at points around the periphery of the support portion.

With regard to "blow molded" (claim 17), it should be noted that the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113).

*Response to Arguments*

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hilary Gutman whose telephone number is 571-272-6662.

A handwritten signature in black ink, appearing to read 'H. Gutman', with a long horizontal flourish extending to the right.

Hilary Gutman  
January 30, 2006